

Docket No.: 1408.017
U.S. Serial No.: 09/882,382
Applicant: LEE *et al.*

AMENDMENT

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (*Currently Amended*) A transdermal preparation having an adhesive layer comprising a drug to be delivered through skin and ~~an~~ a solution-type acrylic adhesive, wherein the drug is hydrophilic or in a salt form and the solution-type acrylic adhesive has a poly (ethylene oxide) or poly (ethylene oxide) monomethyl ether side chain.
2. (*Original*) the transdermal preparation according to claim 1, further comprising at least one additional component chosen from a solubilizer and a skin permeation enhancer.
3. (*Previously Presented*) The transdermal preparation according to claim 1, wherein the amount of drug in the preparation is in a range of 1-50% by weight, based on the total weight of the adhesive layer.
4. (*Currently Amended*) The transdermal preparation according to claim 1, wherein the molecular weight of the poly (ethylene oxide) or poly(ethylene oxide) monomethyl ether is in a range of 100-30000, and wherein the amount of poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether in the acrylic adhesive is in the range of 0.01-50% by weight based on the total weight of the acrylic adhesive.
5. (*Currently Amended*) The transdermal preparation according to claim 4, wherein the molecular weight of the poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether is in a range of 400-5000, and wherein the amount of poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether in the acrylic adhesive is in a range of 0.05-30 % by weight based on the total weight of the acrylic adhesive.

Docket No.: 1408.017
U.S. Serial No.: 09/882,382
Applicant: LEE *et al.*

6. (*Previously Presented*) The transdermal preparation according to claim 1, wherein the drug is selected from a group consisting of sodium, potassium and diethylammonium salts of diclofenac, amfenac, aceclofenac and alclofenac; ketorolac tromethamine; hydrochloride, phosphate and methanesulfonate salts of eperisone and tolperisone; oxybutynin chloride; hydrochloride, hydrobromide, fumarate, succinate and tartrate salts of diphenhydramine, ketotifen, doxylamine, promethazine and trimetoprim; hydrochloride and sulfate salts of tulobuterol, clenbuterol, procaterol and terbutaline; acetate, succinate, valerate and disodium phosphate salts of hydrocortisone, dexamethasone and betamethasone; and hydrochloride salts of ondansetron, granisetron and ramosetron.

C1
cont.
7. (*Currently Amended*) The transdermal preparation according to claim 2, wherein the solubilizer comprises at least one component selected from a group consisting of ethanol, isopropanol, poly(ethylene glycol), ethoxydiglycol, ~~distilled water~~, propylene glycol, glycerin and dimethylsulfoxide, and wherein the amount of solubilizer in the adhesive layer is in a range of 0.5-50% by weight based on the total weight of the adhesive layer.

8. (*Previously Presented*) The transdermal preparation according to claim 2, wherein the skin permeation enhancer comprises at least one component selected from a group consisting of higher fatty acids; higher alcohols; higher fatty acid esters; fatty acid esters; fatty acid ethers of poly(ethylene glycol); fatty acid esters of poly(ethylene glycol); fatty acid ethers of propylene glycol; fatty acid esters of propylene glycol; sorbitan fatty acid esters; poly(ethylene glycol) sorbitan fatty acid esters; terpenes; sulfoxides; pyrrolidones; amides; and *N*-hydroxy methyl lactate, sorbitol, urea, squalene, olive oil, mineral oil and its derivative, and wherein the amount of skin permeation enhancer in the adhesive layer is in a range of 0.5-50% by weight based on the total weight of the adhesive layer.

9. (*Original*) The transdermal preparation according to claim 8, wherein the skin permeation enhancer comprises at least one component selected from a group consisting of lauric

Docket No.: 1408.017
U.S. Serial No.: 09/882,382
Applicant: LEE *et al.*

acid, oleic acid, lauryl alcohol, oleyl alcohol, glycerol monolaurate, glycerol monooleate, polyoxyethylene(2) lauryl ether, polyoxyethylene(2) oleyl ether, propylene glycol monolaurate, propylene glycol monooleate, sorbitan monolaurate, sorbitan monooleate, lauryl diethanolamide, *N*-methyl-2-pyrrolidone and isopropyl myristate.

10. (*Previously Presented*) The transdermal preparation according to claim 7, wherein the amount of the solubilizer and of the skin permeation enhancer in the adhesive layer are each in a range of 1-30% by weight, based on the total weight of the adhesive layer.

C₁
cont.
11. (*Previously Presented*) The transdermal preparation according to claim 2, wherein the amount of drug is in a range of 1-50% by weight, based on the total weight of the adhesive layer.

12. (*Currently Amended*) The transdermal preparation according to claim 2, wherein the molecular weight of the poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether is in a range of 100-30000, and the amount of poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether is in the range of 0.01-50% by weight based on the total weight of the acrylic adhesive.

13. (*Previously Presented*) The transdermal preparation according to claim 2, wherein the drug is selected from a group consisting of sodium, potassium and diethylammonium salts of diclofenac, amfenac, aceclofenac and alclofenac; ketorolac tromethamine; hydrochloride, phosphate and methanesulfonate salts of eperisone and tolperisone; oxybutynin chloride; hydrochloride, hydrobromide, fumarate, succinate and tartrate salts of diphenhydramine, ketotifen, doxylamine, promethazine and trimeprazine; hydrochloride and sulfate salts of tulobuterol, clenbuterol, procaterol and terbutaline; acetate, succinate, valerate and disodium phosphate salts of hydrocortisone, dexamethasone and betamethasone; and hydrochloride salts of ondansetron, granisetron and ramosetron.

Docket No.: 1408.017
U.S. Serial No.: 09/882,382
Applicant: LEE *et al.*

14. (*Previously Presented*) The transdermal preparation according to claim 8, wherein the amount of the solubilizer and of the skin permeation enhancer in the adhesive layer are each in a range of 1-30% by weight, based on the total weight of the adhesive layer.

C¹
cancel
15. (*Previously Presented*) The transdermal preparation according to claim 9, wherein the amount of the solubilizer and of the skin permeation enhancer in the adhesive layer are each in a range of 1-30% by weight, based on the total weight of the adhesive layer.

16. (*Original*) An adhesive for use in the transdermal delivery of a hydrophilic or salt form drug, the adhesive comprising an acrylic polymer including a poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether side chain.

17. (*Previously Presented*) A pharmaceutical dosage form for transdermal delivery of a hydrophilic or salt form drug, the dosage form comprising an amount of the drug and an acrylic polymer adhesive, wherein the acrylic polymer has a poly(ethylene oxide) or poly(ethylene oxide) monomethyl ether side chain.
